



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/718,619

11/24/2003

Harumi Suzuki

01-510

1296

23400

7590

08/08/2006

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER

FAHMY, WAEI M

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/718,619 | SUZUKI ET AL. | |
| | Examiner | Art Unit | |
| | Matthew W. Such | 2891 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 3-10 and 22-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>24 November 2003</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Invention II, drawn to claim 1-2 and 11-21, in the reply filed on 26 July 2006 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 11 and 13-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claims 1, 11 and 13-19, the phrase "when" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The examiner provisionally interprets the claims as not requiring the conditions dependant on the phrase "when".

Art Unit: 2891

6. Regarding claim 20, the claim recites the phrase “increases susceptibility to burn at 0.5% or more” without distinctly defining the element that is attributed to the “0.5% or more” and further to the “increases susceptibility”. The examiner provisionally interprets that the device is sealed with a gas that increases susceptibility to burn compared to vacuum conditions. The examiner provisionally interprets the “0.5% or more” to be the concentration of the gas.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. In so far as definite, claims 1-2 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada ('833) in view of Nakaya ('311).

9. Regarding claim 1, Wada teaches an organic electroluminescent (EL) display panel having an organic layer (Element 3) between a lower electrode (Element 2, anode) and an upper electrode (Element 4, cathode). While Wada teaches these pixels are used in high precision displays (Para. 0019), Wada does not explicitly recite the limitation of a “plurality” of pixels.

Nakaya teaches forming a plurality of organic EL display panel including a plurality of pixels (see entire publication). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the pixels of Wada into a plurality as shown by Nakaya in order to produce a display capable of showing different images (Nakaya).

Art Unit: 2891

The language, term, or phrase “pixels repair themselves”, is directed towards the process of producing an organic EL device. It is well settled that “product by process” limitations in claims drawn to structure are directed to the product, *per se*, no matter how actually made. *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also, *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wethheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al.*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product *per se* which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or otherwise. The above case law further makes clear that applicant has the burden of showing that the method language necessarily produces a structural difference.

As such, the language “pixels repair themselves” only requires pixels, which does not distinguish the invention from Wada in view of Nakaya, who teaches the structure as claimed.

Further, the manner of operating the device does not differentiate an apparatus claim from the prior art. A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) See MPEP §2114. The recitation of “a backward bias voltage equal or less than a withstand voltage of the organic layer in a voltage application condition at the time of use is applied thereto” is an intended use language

Art Unit: 2891

which does not differentiate the claimed device from the prior art device of Wada in view of Nakaya, who teaches the structure of the claim as described above.

10. Regarding claim 2, Wada further teaches a light-emitting layer (Element 7) disposed between the lower electrode and the upper electrode.

11. Regarding claims 11-19, each of the claims are directed towards various manners of operating the device of claim 1, which does not differentiate an apparatus claim from the prior art. A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) See MPEP §2114. The recitations concerning the application of voltages are intended use language which do not differentiate the claimed device from the prior art device of Wada in view of Nakaya, who teaches the structure of the claim as described above.

Regarding the structural limitations of claims 16 and 17, Wada further teaches that the thickness of the upper electrode (cathode) can be 40 nanometers (Para. 0085).

The language, term, or phrase “thinned”, is directed towards the process of producing an upper electrode having a thickness of 100 nm or less. It is well settled that “product by process” limitations in claims drawn to structure are directed to the product, *per se*, no matter how actually made. *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also, *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In*

Art Unit: 2891

re Wethheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al.*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product *per se* which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or otherwise. The above case law further makes clear that applicant has the burden of showing that the method language necessarily produces a structural difference.

As such, the language “thinned to 100 nm or less” only requires the upper electrode have thickness of 100 nm or less, which does not distinguish the invention from Wada in view of Nakaya, who teaches the structure as claimed.

12. Regarding claim 20, Wada further teaches that the pixels are sealed in a gas which contains oxygen, which increases the susceptibility of combustible materials to burn. The volume of oxygen in the atmosphere is 10%, which is greater than 0.5%.

13. Regarding claims 21, Wada further teaches that the surface roughness of the lower electrode (anode) can be 1 nanometer (Para. 0047).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kawamura ('319), Tanaka ('765), Liao ('349) and Yamada ('450) each teach various structural configurations, methods of producing, and methods of using organic EL displays.

Art Unit: 2891

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Such whose telephone number is 571-272-8895.

The examiner can normally be reached on Monday - Friday 8AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley W. Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew W. Such
Examiner
Art Unit 2891



**B. WILLIAM BAUMEISTER
SUPERVISORY PATENT EXAMINER**

MWS
8/4/06